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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,518	01/30/2002	William D. Fisher	10010469-1	3691

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AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
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Loveland, CO 80537-0599

EXAMINER

FORMAN, BETTY J

ART UNIT	PAPER NUMBER
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1634

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,518

Applicant(s)

FISHER ET AL.

Examiner

BJ Forman

Art Unit

1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 20-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1634

DETAILED ACTION

Status of the Claims

1. This action is in response to papers filed 25 August 2004 in which claim 1 was amended. The amendments have been thoroughly reviewed and entered.

The previous rejections in the Office Action dated 9 June 2004, not reiterated below, are withdrawn in view of the amendments and/or Applicant's comments. All of the arguments have been thoroughly reviewed but are deemed moot in view of the amendments, withdrawn rejections and new grounds for rejection. New grounds for rejection are discussed.

Claims 1-19 are under prosecution.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5-7, 9-14, 18-19 are rejected under 35 U.S.C. 102(b) as anticipated by Tisone et al (U.S. Patent No. 6,063,339 issued 16 May 2000).

Art Unit: 1634

The claims are broadly drawn to methods of fabricating multiple arrays, each array having multiple rows of feature locations with arrays of different sets arranged in an orthogonal orientation with respect to the rows. The claims are given the broadest reasonable interpretation consistent with the broad claim language whereby two or more arrays comprises two or more rows having two or more sets (e.g. spots) wherein the arrays are arranged orthogonally (i.e. at right angles). As such, the claims encompass a substrate having four aligned rows of spots wherein each array comprises alternating or adjacent rows.

Regarding Claim 1, Tisone et al disclose a method of fabricating multiple arrays on a substrate (e.g. Fig. 6 and 10E) each array having multiple rows and sets (i.e. spots within a row) and arranged orthogonally. The method comprise dispensing drops from a head onto the substrate while maintaining a gap between the head and substrate (i.e. on-the-fly printing "taking into account it anticipated trajectory", Column 8, lines 27-34) while moving the head and substrate relative to one another along a path. Tisone et al defines the path as moving the head in a direction along a row, then moving the head in an opposite direction along a second row (i.e. bi-directional printing, Fig. 6 and Column 14, lines 55-65). Figure 6 illustrates array #111, with an enlarged section #701. The printing path is illustrated by the arrows #730. Tisone et al moves the head along row #706, and then moves the head in the opposite directions along alternating rows. Using language of the instant claims, the first (and each) array set includes the first three rows and the printing path is bi-directional for those three rows, then the head moves in a direction opposite the first row to print the fourth row. This process is continued to fabricate multiple arrays, each comprising three rows (Column 22, line 63-Column 23, line 12 and Fig. 6). It is noted that printing of rows two and three, prior to printing row four (step (b)), in the method of Tisone are encompassed by the open claim language of the instant claims.

Regarding Claim 2, Tisone et al disclose the method wherein the arrays are biopolymer arrays (Column 1, lines 10-16 and Column 7, lines 18-30).

Art Unit: 1634

Regarding Claim 3, Tisone et al disclose the method wherein the first and second arrays are adjacent (Fig. 6).

Regarding Claim 5, Tisone et al disclose the method wherein the repeating is with a new array set i.e. along printing path #730, fig. 6.

Regarding Claim 6, Tisone et al disclose the method wherein the second array set is adjacent the first i.e. along printing path #730, fig. 6.

Regarding Claim 7, Tisone et al disclose the method wherein the relative moving is repeated while dispensing (Column 22, line 63-Column 23, line 12).

Regarding Claim 9, Tisone et al disclose the method wherein repetitions are parallel and offset i.e. row 1 is parallel to row 4 and offset by rows 2 and 3 (fig. 6).

Regarding Claim 10, Tisone et al disclose the method wherein rows are straight lines (fig. 6).

Regarding Claim 11, Tisone et al disclose the method wherein each array has multiple arrays e.g. three rows wherein each row is considered an array (Fig. 6).

Regarding Claim 12, Tisone et al disclose the method wherein the array are spaced apart i.e. the array are separated by a space (fig. 6).

Regarding Claim 13, Tisone et al disclose the method wherein the arrays have the same layout (Fig. 6).

Regarding Claim 14, Tisone et al disclose the method wherein the majority of rows in an array are dispensed while the head is moving in the same direction i.e. alternating rows (e.g. 1 & 3) are printed in the same direction. Therefore, arrays having an odd number of rows (i.e. 3) have a majority of rows printed while the head is moving in the same direction (Fig. 6).

Regarding Claim 18, Tisone et al disclose the method wherein the head has multiple drop dispensers (Column 7, lines 61-67).

Regarding Claim 19, Tisone et al disclose the method wherein the dispensers are pulse jets (Column 9, lines 7-39).

Art Unit: 1634

4. Claims 1-16 and 18-19 rejected under 35 U.S.C. 102(e) as being anticipated by Webb (U.S. Patent No. 6,613,893, filed 31 July 2000).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding Claim 1, Webb discloses the method for fabricating an array comprising dispensing drops from a drop dispenser while maintaining a gap between the head and substrate, and moving the head and substrate relative to each other wherein the moving is in the direction of row for a first set, and then in the opposite direction along the rows of a second set and repeating the positioning and moving (Column 7, lines 48-Column 9, line 55 and Fig.

4). Webb further teaches "line by line" dispensing (Column 10, lines 30-35):

In this manner, head system 210 can be scanned line by line, by scanning along a line over substrate 10 in the direction of axis 204 using transporter 100, while line by line movement of substrate 10 in a direction of axis 63 (which includes direction 63a) is provided by transporter 60.

This teaching clearly illustrates movement "line by line" (i.e. without movement over the first array set) because transporters 100 and 60 move the substrate along axis 204 and 63 respectively to provide "line by line" printing .

Regarding Claim 2, Webb discloses the arrays are biopolymer arrays (Abstract).

Regarding Claim 3, Webb discloses the first and second set are adjacent (Fig. 4).

Regarding Claim 4, Webb discloses the repeating is with the same two array sets (Column 5, lines 50-67 and Fig. 4).

Art Unit: 1634

Regarding Claim 5, Webb discloses the moving is repeated multiple times with a new second array (Column 5, lines 50-67 and Fig. 4).

Regarding Claim 6, Webb discloses each second array set is adjacent the first array set (Column 5, lines 50-67 and Fig. 1-4).

Regarding Claim 7, Webb discloses repeating moving the head and substrate relative to each other while dispensing (Column 9, lines 47-55).

Regarding Claim 8, Webb discloses the head is reloaded with fluid between repetitions (Column 9, lines 59-62).

Regarding Claim 9, Webb discloses each repeated movements of the head are parallel and offset from one another (Column 7, lines 48-Column 9, line 55 and Fig. 4).

Regarding Claim 10, Webb discloses the rows of features are straight lines i.e. rows and columns (Column 3, line 66-Column 4, line 13 and Fig. 4).

Regarding Claim 11, Webb discloses each array has multiple arrays arranged in the direction of rows (Column 3, line 66-Column 4, line 13 and Fig. 4).

Regarding Claim 12, Webb discloses each array has multiple arrays are spaced apart (Column 6, line 47-Column 7, line 24).

Regarding Claim 13, Webb discloses the array have the same layout i.e. "the same" (Column 6, lines 56-57).

Regarding Claims 14-15, Webb discloses the method wherein the rows are dispensed while the head is moving in the same direction along the rows (Column 7, lines 47-55).

Regarding Claim 16, Webb discloses the method additionally comprising separating the substrate into units carrying an array (Column 14, lines 15-18)

Regarding Claim 18, Webb discloses the method wherein the head has multiple dispensers (Column 2, lines 47-54).

Regarding Claim 19, Webb discloses the dispensers are pulse jets (Column 2, lines 47-54).

Art Unit: 1634

5. Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Webb (U.S. Patent No. 6,599,693, filed 31 July 2000).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding Claim 1, Webb discloses the method for fabricating an array comprising dispensing drops from a drop dispenser while maintaining a gap between the head and substrate, and moving the head and substrate relative to each other wherein the moving is in the direction of row for a first set, and then in the opposite direction along the rows of a second set and repeating the positioning and moving (Column 6, lines 48-Column 9, line 17 and Fig.

4). Webb further discloses line by line dispensing (Column 8, lines 46-50):

In this manner, head system 210 can be scanned line by line, by scanning along a line over substrate 10 in the direction of axis 204 using transporter 100, while line by line movement of substrate 10 in a direction of axis 63 is provided by transporter 60.

This teaching clearly illustrates movement "line by line" (i.e. without movement over the first array set) because transporters 100 and 60 move the substrate along axis 204 and 63 respectively to provide "line by line" printing .

Regarding Claim 2, Webb discloses the array is biopolymer arrays (Abstract).

Regarding Claim 3, Webb discloses the first and second set are adjacent (Fig. 1-4).

Regarding Claim 4, Webb discloses the repeating is with the same two array sets (Column 6, lines 3-15; Column 7, lines 13-39 and Fig. 4).

Art Unit: 1634

Regarding Claim 5, Webb discloses the moving is repeated multiple times with a new second array (Column 5, line 53-Column 6, line 28 and Fig. 1-4).

Regarding Claim 6, Webb discloses each second array set is adjacent the first array set (Column 5, line 53-Column 6, line 28 and Fig. 1-4).

Regarding Claim 7, Webb discloses repeating moving the head and substrate relative to each other while dispensing (Column 7, lines 13-39).

Regarding Claim 8, Webb discloses the head is reloaded with fluid between repetitions (Column 7, lines 13-39).

Regarding Claim 9, Webb discloses each repeated movements of the head are parallel and offset from one another (Column 6, lines 48-Column 9, line 17 and Fig. 4).

Regarding Claim 10, Webb discloses the rows of features are straight lines (Column 6, lines 48-Column 9, line 17 and Fig. 4).

Regarding Claim 11, Webb discloses each array has multiple arrays arranged in the direction of rows (Column 5, line 53-Column 6, line 28 and Fig. 1-4).

Regarding Claim 12, Webb discloses each array has multiple arrays are spaced apart (Column 5, line 53-Column 6, line 28 and Fig. 1-4).

Regarding Claim 13, Webb discloses the array have the same layout i.e. "the same" (Column 6, lines 4-5).

Regarding Claims 14-15, Webb discloses the method wherein the rows are dispensed while the head is moving in the same direction along the rows (Column 7, lines 13-39 and 44-48).

Regarding Claim 16, Webb disclose the method additionally comprising separating the substrate into units carrying an array (Column 12, lines 40-43).

Regarding Claim 17, Webb discloses the method further comprising adding identifiers to the substrate i.e. fiducials (Column 9, lines 6-14).

Art Unit: 1634

Regarding Claim 18, Webb discloses the method wherein the head has multiple dispensers (Abstract).

Regarding Claim 19, Webb discloses the dispensers are pulse jets (Abstract).

Response to Arguments

6. Applicant asserts that the Webb patents do not teach moving the head in the opposite direction as claimed. The argument has been considered but not found persuasive because, as cited above, Webb discloses line by line dispensing (Column 8, lines 46-50:

In this manner, head system 210 can be scanned line by line, by scanning along a line over substrate 10 in the direction of axis 204 using transporter 100, while line by line movement of substrate 10 in a direction of axis 63 is provided by transporter 60.

This teaching clearly illustrates movement "line by line" (i.e. without movement over the first array set) because transporters 100 and 60 move the substrate along axis 204 and 63 respectively to provide "line by line" printing .

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-15 and 18-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Caren et al (U.S. Patent No. 6,323,043, issued 27 November 2001) in view of Tisone et al (U.S. Patent No. 6,063,339, issued 16 May 2000).

Art Unit: 1634

Regarding Claim 1, Caren et al disclose the method for fabricating an array comprising dispensing drops from a drop dispenser while maintaining a gap between the head and substrate (Column 13, lines 1-2), and moving the head and substrate relative to each other wherein the moving is in the direction of row for a first set, and then in the opposite direction along the rows of a second set and repeating the positioning and moving (Column 12, line 40-Column 13, line 9). Caren et al teach dispensing is performed by moving the head across the substrate "line by line" (Column 13, lines 2-5) which clearly suggests a back and forth movement of the printing head. Furthermore, back and forth print head movement was well known at the time the claimed invention was made as taught by Tisone et al who teach a similar method of array fabrication wherein they teach bi-directional printing "advantageously decreased the time to complete a particular dispensing operation" (Column 23, lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the bi-directional printing of Tisone et al to the method of Caren et al for the expected advantage of decreased dispensing time as taught by Tisone et al (Column 23, lines 1-2).

Regarding Claim 2, Caren et al disclose the arrays are biopolymer arrays (Abstract).

Regarding Claim 3, Caren et al disclose the first and second set are adjacent i.e. line-by-line (Column 12, line 40-Column 13, line 9).

Regarding Claim 4, Caren et al disclose the repeating is with the same two array sets e.g. the array sets are the same (Column 6, lines 52-67).

Regarding Claim 5, Caren et al disclose the moving is repeated multiple times with a new second array i.e. to provide all different features (Column 6, lines 52-67).

Regarding Claim 6, Caren et al disclose each second array set is adjacent the first array set (Column 6, lines 52-67 and Fig. 1).

Regarding Claim 7, Caren et al disclose repeating moving the head and substrate relative to each other while dispensing axis (Column 4, lines 31-35).

Art Unit: 1634

Regarding Claim 8, Caren et al disclose the head is reloaded with fluid between repetitions (Column 12, lines 40-64).

Regarding Claim 9, Caren et al disclose each repeated movements of the head are parallel and offset from one another i.e. line-by-line (Column 12, line 40-Column 13, line 9).

Regarding Claim 10, Caren et al disclose the rows of features are straight lines i.e. rows and columns (Column 14, lines 27-29).

Regarding Claim 11, Caren et al disclose each array has multiple arrays arranged in the direction of rows (Fig.1 and Column 6, lines 52-67).

Regarding Claim 12, Caren et al disclose each array has multiple arrays are spaced apart (Fig.1 and Column 6, lines 52-67).

Regarding Claim 13, Caren et al disclose the array have the same layout i.e. "identical" (Column 6, lines 52-53).

Regarding Claims 14-15, Caren et al disclose the method wherein the rows are dispensed while the head is moving in the same direction along the rows (Column 4, lines 31-35).

Regarding Claim 18, Caren et al disclose the method wherein the head has multiple dispensers (Column 5, lines 3-13).

Regarding Claim 19, Caren et al disclose the dispensers are pulse jets (Column 5, lines 3-13).

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

Art Unit: 1634

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-19 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,613,893 in view of Tisone et al (U.S. Patent No. 6,063,339, issued 16 May 2000). Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to methods of fabricating multiple arrays comprising moving a dispensing head along a path while dispensing drops along the path. The claim sets differ only in the instant claims require moving the head in a direction opposite the first direction and along the second array and not over the first array (i.e. bi-directional printing).

However, back and forth print head movement (bi-directional printing) was well known at the time the claimed invention was made as taught by Tisone et al who teach a similar method of array fabrication wherein they teach bi-directional printing "advantageously decreased the time to complete a particular dispensing operation" (Column 23, lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the bi-directional printing of Tisone et al to the patent for the expected advantage of decreased dispensing time as taught by Tisone et al (Column 23, lines 1-2).

Art Unit: 1634

11. Claims 1-19 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,599,693 893 in view of Tisone et al (U.S. Patent No. 6,063,339, issued 16 May 2000). Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to methods of fabricating multiple arrays comprising moving a dispensing head along a path while dispensing drops along the path. The claim sets differ in that independent claim 1 of the patent is drawn to a pulse jet dispenser while dependent claim 19 of the instant set recites this limitation. Hence, the claim sets are drawn to similar methods and merely differ only in that the instant claims require moving the head in a direction opposite the first direction and along the second array and not over the first array (i.e. bi-directional printing).

However, back and forth print head movement (bi-directional printing) was well known at the time the claimed invention was made as taught by Tisone et al who teach a similar method of array fabrication wherein they teach bi-directional printing "advantageously decreased the time to complete a particular dispensing operation" (Column 23, lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the bi-directional printing of Tisone et al to the patent for the expected advantage of decreased dispensing time as taught by Tisone et al (Column 23, lines 1-2).

Conclusion

12. No claim is allowed.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (571) 272-0741. The examiner can normally be reached on 6:00 TO 3:30.

Art Unit: 1634


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones can be reached on (571) 272-0745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.


BJ Forman, Ph.D.
Primary Examiner
Art Unit: 1634
October 20, 2004